

## **REMARKS/ARGUMENTS**

Claims 1-9, 11-23, and 29 are pending in the application. Claims 1, 3, 15, 19, 21, and 29 are amended herein. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

### **Withdrawal of Claims**

According to the Examiner, claims 5-9, 12, 17-20, and 22-23 are withdrawn from consideration. In response, the Applicant reasserts the Applicant's traversal(s) of the restriction requirement(s) that resulted in the Examiner withdrawing those claims from consideration.

### **Claim Rejections**

On page 2 of the office action, the Examiner rejected claims 1-2, 4, 11, 13-16, 21, and 29 under 35 U.S.C. 102(b) as being anticipated by Nojima. On page 6, the Examiner rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over Nojima. For the following reasons, the Applicant submits that all of the now-pending claims are allowable over Nojima..

#### **Claims 1, 21, and 29**

In rejecting claims 1, 21, and 29, the Examiner stated on page 4 that "applicant just does not define the term cross-modulation." In response, the Applicant has amended claims 1, 21, and 29 to define the term cross-modulation. In particular, claims 1 and 21 have been amended to explicitly recite that "the cross-modulation of the input signal on the pilot signal within the distorting element means that modulation of the input signal results in modulation of the pilot signal in the output signal generated by the distorting element." Similarly, claim 29 has been amended to explicitly recite that "the cross-modulation of the input signal on the pilot signal within the amplifier means that modulation of the input signal results in modulation of the pilot signal in the output signal generated by the amplifier."

In addition, claims 1, 3, 15, 19, 21, and 29 have been amended to avoid using the term "adapted to" in order to circumvent an argument that such recitations do not constitute positive limitations on the claimed subject matter.

As argued previously and as evidenced by the Declaration under 37 C.F.R. 1.132 submitted previously, Nojima does not teach or even suggest a system that (1) detects, in a feedback signal, cross-modulation distortion signals derived from cross-modulation of an input signal on a pilot signal within a distorting element, such as an amplifier, and (2) produces an error correction signal based on such detected cross-modulation distortion signals in order to reduce the cross-modulation distortion signals, as the term cross-modulation is explicitly defined in the claims. As such, the Applicant submits that independent claims 1, 21, and 29, as well as the rest of the pending claims, which variously depend therefrom, are all allowable over Nojima.

#### **Claim 7**

According to claim 7, the pilot signal is derived from the input signal. Although the Examiner withdrew claim 7 from consideration, on page 6, referring to Nojima's Fig. 4, the Examiner stated that "Element 2 is a pilot generator and as such a pilot signal is generated in the input signal" (emphasis added). First of all, Nojima's element 2 is not a pilot generator. Element 2 is a band stop filter, which removes the noise component of a specified narrow bandwidth. See page 3, lines 18-19, of Nojima.

Moreover, claim 7 does not recite that the pilot signal is derived in the input signal. Rather, claim 7 recites that the pilot signal is derived from the input signal. These are two very different ideas. In fact, Nojima does not teach or even suggest the claimed feature. As such, the Applicant submits that this provides additional reasons for the allowability of claim 7 (and also claim 8) over Nojima.

#### Claim 8

According to claim 8, the pilot signal is a frequency translated version of the input signal. Since Nojima does not teach or even suggest such a feature, the Applicant submits that this provides additional reasons for the allowability of claim 8 over Nojima.

#### Claim 9

According to claim 9, the pilot signal is a single tone signal. Since Nojima does not teach or even suggest such a feature, the Applicant submits that this provides additional reasons for the allowability of claim 9 over Nojima.

#### Claim 12

According to claim 12, the frequency of the pilot signal is frequency hopped. Since Nojima does not teach or even suggest such a feature, the Applicant submits that this provides additional reasons for the allowability of claim 12 over Nojima.

#### Claim 17

According to currently amended claim 17, the adjuster comprises an in-phase adjuster and a quadrature phase adjuster. Since Nojima does not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 17 over Nojima.

#### Claims 18 and 22

According to currently amended claim 18, the predistorter arrangement comprises first and second predistorters, first and second pilot generators, and first and second error correctors, where the first predistorted input signal generated by the first predistorter is processed by the second predistorter to produce the predistorted input signal supplied to the distorting element. Fig. 22 shows an example of the predistorter arrangement of claim 18. Since Nojima does not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 18 (and also claims 19-20) over Nojima. The Applicant submits that this similarly provides additional reasons for the allowability of claim 22 (and also claim 23) over Nojima.

#### Claim 19

According to currently amended claim 19, the first and second predistorters are adapted so that only one of them cancels higher order distortion. The Examiner did not appear to address this explicit feature of claim 19 in rejecting the claims. Since Nojima does not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 19 over Nojima.

#### Claim 20

According to currently amended claim 20, the first and second error correctors share one or more components in common. Since Nojima does not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 20 over Nojima.

#### Claim 23

According to claim 23, one of the predistorters is inhibited from error correction while the other carries out correction to produce a steady state, and is then enabled to carry out correction. Since Nojima does not teach or even suggest such features, the Applicant submits that this provides additional reasons for the allowability of claim 23 over Nojima.

#### Conclusion

For the reasons set forth above, the Applicant respectfully submits that the rejections of claims under Sections 102(b) and 103(a) have been overcome.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Respectfully submitted,

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